

ABSTRACT OF THE DISCLOSURE

OPTICAL CROSS-CONNECT WITH MAGNETIC MICRO-ELECTRO-MECHANICAL ACTUATOR CELLS

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An optical cross-connect is fabricated on a substrate using individual MEMs dice with mirrors that rotate into and out of an optical beam path. Each die can be aligned to a single (input-output) pair of collimators in a fiber-optic switching system. An
10 individually accessible magnetic drive on each die provides low power consumption when re-configuring the array in addition to fast switching speeds. The state of each die can be electronically sensed to verify proper array configuration and operation of each die.